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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,356	03/31/2004	Koji Hayashi	10449-028002	7755

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EXAMINER	
PSITOS, ARISTOTELIS M	
ART UNIT	**PAPER NUMBER**
2653	

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/814,356	HAYASHI, KOJI	
	Examiner	Art Unit	
	Aristotelis M. Psitos	2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 March 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☒ Certified copies of the priority documents have been received in Application No. 09/717,771.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Applicant's response of 2/17/04 has been considered with the following results.

Information Disclosure Statement

The IDS of 8/1/05, 6/15/05, 3/14/05, 12/17/04, 9/27/04, 9/13/04, and 8/16/04 have been received. The document AA on the IDS of 11/8/04 has not been made of record because it is not PRIOR ART.

Claim Objections

Claims 1-5, and 7-10 are objected to because of the following informalities: Applicant has attempted to recite a positive step "is likely to" in response to the ---may --- term previously recited. Nevertheless, such is not A POSITIVE step, but again a possibility. The examiner strongly recommends positive language such as --- buffer underrun --- exists, occurs, is detected, etc. Appropriate correction is required.

In the action below, the examiner interprets such phrase as a positive step.

It is noted that of pending claims 1-9, pending claims 1-3,4,5, and 6 are not patentable distinct from claims 3-9 of pending application 09/717771. Hence the following rejections are made.

Furthermore, applicants' are requested to maintain a clear line of demarcation between claims in pending applications.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

1. Claims 1-3,4-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In particular, applicant has presented claims to an interrupt control circuit that interrupts the data recording "if the laser beam is continuously generated at the relatively low power level"; however, there is NO disclosure as to what/how such is accomplished.

As interpreted by the examiner applicant's invention is drawn to interrupt ability for recording when two conditions exist:

a) buffer underrun condition

b) presence of sync signal.

With respect to claims 1-3,,4-9, the examiner understands that the specification provides for the generation of the synch. Signal(s) which is what the examiner interprets the phrase referring to "continuously generated at the relatively low power level during the "writing operation", i.e., during recording. However, there is no disclosed circuitry/ability that provides for

a) the detection of such the continuously relatively low power level

b) and the existence of the buffer underrun condition

in order to yield the claimed invention.

Absent any such disclosure, the invention is incomplete. The specification must clearly describe the invention and not leave it up to some latter individuals to create additional elements/means in order to render the claim operational.

AS FAR AS THE CLAIMS RECITE P[SOTIVE LIMITATIONS, THE FOLLOWING REJECTIONS ARE MADE.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-3,4-6 and 9 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 of U.S. Patent No. 6,487,616 in view of Kuroda et al and all alternatively with JP 08-147879.

The present claims differ (obvious) over claim 1 of the above noted patent because they recite both laser source and buffer underrun ability. The examiner interprets the interruption recited in the above noted claim as another (obvious) way in which to claim buffer under-run condition – see Kuroda et al claimed recitation with respect to buffer storage. The ability of claiming a laser source so as to perform the recording is considered an obvious claim limitation, i.e., a laser and its' drive circuitry as recited in claims 1, 7 and 10 would be an obvious modification so as to claim appropriate recording circuitry since such elements are required to complete a recording system/inherently present in any recording circuitry.

It would have been obvious to modify the base system of claim 1 of 6,487,616 and modify such to include phraseology with respect to buffer underrun, and to include laser and laser drive circuitry as required by claims 1, 7 and 10. Such phraseology and required elements are considered obvious to one of ordinary skill in the art so as to complete the recording apparatus.

Alternatively JP 08-147879 also discloses the ability of buffer underrun condition monitoring as well as interrupting the laser power for writing when such a condition exits.

It would have been obvious to modify the base system of claim 1 in 6,487,616 and modify such with the appropriate language to include buffer underrun (as opposed to interrupting) and the laser drive circuitry in order to control the interruption.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim Rejections - 35 USC § 103

4. Claims 1-3,4-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 08-147879 further considered with either Takagi et al and further with EP 507571

JP 09-147879 discloses in this environment the ability to stop recording/interrupt laser power, upon an appropriate buffer condition.

There is no specific mentioning of an address memory for storing such positions, although resumption of recording is started at the next available location.

Either Takagi et al or the EP document disclose the ability of having a memory addressing ability so as to know at which location the system was interrupted, and subsequent resumption occurs at the proper location.

It would have been obvious to modify the base system of JP 08-147879 and modify such with the above teaching from either Takagi et al or the EP document to Shimizu et al, motivation is to restarting the system at the point of interruption.

Furthermore, with respect to the existence of the existence of the laser beam at, if, when, continuously generated at a low power level:

a) interpretation of such focuses upon the existence of such in the sync signal.

As disclosed by the above noted JP document 08-147879 as discussed by applicant such a sync pattern does exist.

Alternatively, Takagi et al performs his resynchronization predicated upon the detected synch pattern at the time of interruption.

Hence the examiner concludes that is would have been obvious to one of ordinary skill in the art to modify the above system of JP 08-147879-Takagiet al/ with the additional teaching from EP 507571 as to when errors occur during such period wherein a sync pattern is sent to the laser generating device and the laser beam is continuously generated at a low power level, and interruption predicated upon buffer underrun exists, the claimed limitations are met.

Takagi et al at col 2 lines 55 to col 3 line 40 depicts/teaches the existence of such signals during a recording phase, and as interpreted by the examiner the phrase "continuously generated at the relatively low power level" refers to the zeros in the sync signal.

EP 507571, at page 5 with respect to the discussion of fig. 8 starting at line 53, clearly describes the detection of the sync signal and if a defect occurs during such period, his term "error".

The examiner maintains the rejection(s) for the reasons of record and as amplified above.

5. Claims 4-6 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hyun further considered with JP 08-147879 and all further considered with Maeda.

Hyun discloses in this environment the ability of indicating a buffer underrun condition and appropriately rerecording the information upon the medium. There is no clear depiction of a laser drive circuit for appropriately interrupting the writing at the buffer underrun and if the laser beam is continuously generated at the low power level in accordance with the data.

JP 08-147879 teaches in this environment the ability of interrupting/stopping the laser upon appropriate loss of information (buffer underrun condition), see the attached MAT (machine assisted translation) stating at paragraph 19 which depicts the laser beam and the generation of the signals thereof, which leads the examiner to maintain the position that the document teaches a laser drive circuit as claimed.

It would have been obvious to modify the base system of Hyun with the above teaching from JP 08-147879 so as to stop/interrupt the laser drive circuitry appropriately and not record information.

Maeda teaches in this environment the ability of also checking for loss of sync, interruption thereof and appropriately compensating the system.

Applicant's attention is drawn to the discussion with respect to 2 line 18-through line 56 with respect to the sync ability in step SP3 of fig. 3, or alternatively with respect to SP34 as discussed in fig. 10.

It would have been obvious to modify the combined system (Hyun – JP 08-147879) with the additional indication of an interruption of sync so as to permit the cessation of writing into the memory device of Hyun when both conditions exist.

The loss of a synch signal which interrupts is a concept known from facsimile days in which no sending/writing of the information is performed if/when loss of such a signal is detected. Hence the examiner concludes that the appropriate combination of references is obvious to one of ordinary skill in the art.

6. Claims 1-3 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over the art as applied to claims 4-6 as stated in paragraph 5 above, and further in view of Takagi et al, or alternatively EP 507571.

These claims require/recite the existence of an address memory for storing buffer underrun address locations. Such is further taught by either the Takagi et al reference or the EP document.

It would have been obvious to modify the base system of references as relied upon above in paragraph 7 so as to permit the system to restart at the position where the break occurred. Such permits the system to begin anew at the location of error and not subsequently thereto (another difference location).

7. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over their respective parent claims 6 and 4 respectively as stated above, and further in view of either the acknowledged prior art or Koishi.

As acknowledged by applicants' with their description of the prior art, the "low power" level exists as part of the cd format in the prior art. Koishi teaches that when a dropout occurs, the system is interrupted and that in order to restart any recording it is initiated at this time period, i.e., when the laser power/laser beam is at a relatively low power level.

It would have been obvious to modify the above noted base references with this capability, since at restart the laser is at a relatively low power level and hence permit the rerecording to commence at the proper laser level.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aristotelis M. Psitos whose telephone number is (571) 272-7594. The examiner can normally be reached on M-Thursday 8 - 4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William R. Korzuch can be reached on (571) 272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Aristotelis M Psitos
Primary Examiner
Art Unit 2653

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